TRANSACTIONS

OF THE

AMERICAN SOCIETY OF CIVIL ENGINEERS

INDEX

VOLUME 90

JUNE, 1927

SUBJECT INDEX, PAGE 1205

AUTHOR INDEX, PAGE 1214

Titles of papers are in quotation marks when given with the author's name.

VOLUME 90

SUBJECT INDEX

AERIAL PHOTOGRAPHY.

See **PHOTOGRAPHY, AERIAL.**

AERIAL SURVEYING.

See **SURVEYING, AERIAL.**

AGRICULTURAL COLONIZATION.

"Land Settlement of Irrigation Projects." Augustus Griffin. (With Discussion.) 750.

"Present Policy of the United States Bureau of Reclamation Regarding Land Settlement." Elwood Mead. (With Discussion.) 730.

AGRICULTURE.

"History and Problems of Irrigation Development in the West." John A. Widtsoe. (With Discussion.) 680.

ARCHES.

"Analysis of Continuous Concrete Arch Systems." Charles S. Whitney. 1094. Discussion: Hardy Cross. 1137.

"Stresses in Thick — of Dams." B. F. Jakobsen. (With Discussion.) 475.

AUTOMOBILE PARKING.

"Increasing the Efficiency of Passenger Transportation in City Streets." John A. Miller, Jr. (With Discussion.) 914.

BEAMS.

"Moments in Restrained and Continuous — by the Method of Conjugate Points." L. H. Nishkian and D. B. Steinman. 1. Discussion: F. E. Richart, Charles S. Whitney, Edward Godfrey, Felix H. Spitzer, C. A. P. Turner, Hardy Cross, George Higgins, E. G. Walker, Donald Derickson, W. M. Wilson, S. M. Cotten, A. T. Granger, John J. Gould, Richard G. Doerfling, R. McC. Beanfield, Walter Ruppel, and Jules D. Gedo. 50.

BRIDGES.

"Analysis of Continuous Concrete Arch Systems." Charles S. Whitney. (With Discussion.) 1094.

"Moments in Restrained and Continuous Beams by the Method of Conjugate Points." L. H. Nishkian and D. B. Steinman. (With Discussion.) 1.

CEMENT.

"Corrosion of Concrete." John R. Baylis. (With Discussion.) 791.
Extraction of the alkalies in Portland —. 796 *et seq.*

CITY PLANNING.

"Development of Industrial Sites and Trackage Layouts at Kansas City, Kansas, and Los Angeles, California, by the Union Pacific System." Walter R. Armstrong. (With Discussion.) 994.

COLONIZATION, AGRICULTURAL.

See **AGRICULTURAL COLONIZATION.**

COLUMNS.

"Stresses in Helically Reinforced Concrete — ." A. W. Zesiger and E. J. Affeldt. 379. Discussion: Missac Thompson, C. L. Eddy, E. H. Harder, J. H. Griffith, John Tucker, Jr., and Jacob Feld. 417.

CONCRETE.

"Analysis of Continuous — Arch Systems." Charles S. Whitney. (With Discussion.) 1094.
"Corrosion of —." John R. Baylis. 791. Discussion: Thaddeus Merriman, John G. Ahlers, M. N. Clair, R. H. Bogue, G. M. Williams, Jasper O. Draffin, Charles A. Newhall, Troy Carmichael, Dalton G. Miller, F. R. McMillan, Nathan C. Johnson, Walter D. Binger, and E. E. R. Tratman. 822.
Extraction of the alkalies from —. 797 *et seq.*
"Stresses in Helically Reinforced — Columns." A. W. Zesiger and E. J. Affeldt. (With Discussion.) 379.

CONTINUOUS GIRDERS.

"Moments in Restrained and Continuous Beams by the Method of Conjugate Points." L. H. Nishkian and D. B. Steinman. (With Discussion.) 1.

COSTS OF WORK.

"Trend of Construction Cost of Certain Public Utilities." William Breuer. 602. Discussion: Frank C. Wight, and J. W. Hummer. 607.

DAMS.

"Developments of the Hydro-Electric Power Commission of Ontario." Frederick A. Gaby. 883.
Storage —. 872.
"Stresses in Thick Arches of —." B. F. Jakobsen. 475. Discussion: William Cain, Elmo G. Harris, Lars R. Jorgensen, Fredrik Vogt, George Paaswell, W. A. Perkins, and Fred A. Noetzli. 522.

ELECTRIC POWER.

"Developments of the Hydro-Electric Power Commission of Ontario." Frederick A. Gaby. 883.
"Trend of Construction Cost of Certain Public Utilities." William Breuer. (With Discussion.) 602.

EVAPORATION.

"— on United States Reclamation Projects." Ivan E. Houk. 266. Discussion: H. S. Kleinschmidt, Robert Follansbee, R. I. Meeker, B. E. Torpen, C. S. Jarvis, Reuben B. Sleight, Lynn Perry, Ralph L. Parshall, S. T. Harding, Charles H. Lee, C. M. O'Neil, J. B. Lippincott, and E. F. Chandler. 287.

FINANCE.

"The Financing of Irrigation Developments by Private Capital." R. E. Shepherd. (With Discussion.) 710.

GAS AND GAS WORKS.

"Trend of Construction Cost of Certain Public Utilities." William Breuer. (With Discussion.) 602.

GAS DISTRIBUTION.

"Pipe Tunnel Under Gowanus Canal, Brooklyn, New York." L. S. Stiles. (With Discussion.) 444.

GIRDERS.

"Moments in Restrained and Continuous Beams by the Method of Conjugate Points." L. H. Nishkian and D. B. Steinman. (With Discussion.) 1.

HYDRAULICS.

See **WATER, FLOW OF, IN OPEN CHANNELS.**

HYDRO-ELECTRIC POWER PLANTS.

See **POWER PLANTS.**

IRRIGATION.

Bibliography on interstate and international water problems of the United States. 1049.

"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the — Division." S. T. Harding, Harry Barnes, Lynn Crandall, Augustus Griffin, O. W. Israelsen, H. E. Murdock, R. L. Parshall, W. L. Powers, G. E. P. Smith, and O. L. Waller. (With Discussion.) 1074.

"Evaporation on United States Reclamation Projects." Ivan E. Houk. (With Discussion.) 266.

"History and Problems of — Development in the West." John A. Widtsoe. 680. Discussion: Samuel Fortier, Arthur P. Davis, and C. E. Grunsky. 687.

"Interstate Water Problems and Their Solution." M. C. Hinderlider and R. I. Meeker. (With Discussion.) 1035.

"— Development Through — Districts." E. Courtland Eaton and Frank Adams. 773. Discussion: Richard R. Lyman, J. B. Lippincott, and O. V. P. Stout. 784.

"Land Settlement of — Projects." Augustus Griffin. 750. Discussion: W. G. Swendsen, Charles H. West, R. A. Hart, R. K. Tiffany, F. H. Newell, and Walter E. Packard. 757.
"Present Policy of the United States Bureau of Reclamation Regarding Land Settlement." Elwood Mead. 730. Discussion: B. A. Etcheverry, Thomas H. Means, George C. Kreutzer, and O. L. Waller. 735.
"Stream Regulation with Reference to — and Power." J. C. Stevens. (With Discussion.) 958.
"The Financing of — Developments by Private Capital." R. E. Shepherd. 710. Discussion: John E. Field, Elwood Mead, and F. H. Newell. 718.

LAND SETTLEMENT.

See **AGRICULTURAL COLONIZATION.**

LAW.

See **WATER LAWS.**

MAPS.

"Aeroplane Topographic Surveys." George T. Bergen. (With Discussion.) 627.

MATHEMATICS.

"Virtual Work: A Restatement." Hardy Cross. (With Discussion.) 610.

MEMOIRS OF DECEASED MEMBERS.

Aertsen, Guilliaem. 1147.
Bascom, George Rockwell. 1149.
Belden, Harry Austin. 1151.
Bossert, Carl Donald. 1197.
Burt, Aaron Moulton. 1153.
Connor, Edward James. 1204.
Creuzbaur, Robert Walter. 1160.
Gifford, George Edwin. 1163.
Harrison, Edlow Wingate. 1165.
Hawksley, Kenneth Phipson. 1167.
Heuer, William Henry. 1168.
Hinckley, Howard Vernon. 1171.
Hoover, Joseph War [illegible]. 1173.
Johnson, Phelps. 11[illegible]
Judson, William Pierson. 1179.
Lockwood, Willard Datus. 1181.
McCormick, Robert Hugh. 1183.
O'Shaughnessy, Thomas Patrick. 1199.
Rowland, Charles Leonard. 1184.
Shively, Clarence Owen. 1200.
Smith, Oberlin. 1185.
Somerville, Robert. 1188.
Stein, Milton Frederick. 1190.
Strachan, Joseph. 1192.

Thompson, William Andrew. 1194.
Wilcox, Clark Luzerne. 1202.
Wood, Reuben Joseph. 1196.

MOMENTS.

"— in Restrained and Continuous Beams by the Method of Conjugate Points" L. H. Nishkian and D. B. Steinman. (With Discussion.) 1.

PARKING REGULATIONS.

See **AUTOMOBILE PARKING.**

PHOTOGRAPHY, AERIAL.

"Aerial Topographic Surveys." George T. Bergen. (With Discussion.) 627.

PILES.

"Pipe Tunnel Under Gowanus Canal, Brooklyn, New York." L. S. Stiles. (With Discussion.) 444.

PIPE.

"— Tunnel Under Gowanus Canal, Brooklyn, New York." L. S. Stiles. (With Discussion.) 444.

POWER PLANTS.

"Developments of the Hydro-Electric Power Commission of Ontario." Frederick A. Gaby. 883.
"Trend of Construction Cost of Certain Public Utilities." William Breuer. (With Discussion.) 602.

PUBLIC UTILITIES.

"Trend of Construction Cost of Certain Public Utilities." William Breuer. (With Discussion.) 602.

RAILROAD TERMINALS.

"Development of Industrial Sites and Trackage Layouts at Kansas City, Kansas, and Los Angeles, California, by the Union Pacific System." Walter R. Armstrong. 994. Discussion: A. D. Butler, Lester Bernstein, and Augustus Hunt. 1003.

RAILROADS.

"Development of Industrial Sites and Trackage Layouts at Kansas City, Kansas, and Los Angeles, California, by the Union Pacific System." Walter R. Armstrong. (With Discussion.) 994.

REINFORCED CONCRETE.

"Analysis of Continuous Concrete Arch Systems." Charles S. Whitney. (With Discussion.) 1094.
"Stresses in Helically — Columns." A. W. Zesiger and E. J. Affeldt. (With Discussion.) 379.

RESERVOIRS.

Developed reservoir capacity, Western United States river basins for year 1919. 1038.

"Evaporation on United States Reclamation Projects." Ivan E. Houk. (With Discussion.) 266.

"The Work of the Quebec Streams Commission." O. O. Lefebvre. 867.

RIVERS.

Bibliography on interstate and international water problems of the United States. 1049.

"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." S. T. Harding, Harry Barnes, Lynn Crandall, Augustus Griffin, O. W. Israelsen, H. E. Murdock, R. L. Parshall, W. L. Powers, G. E. P. Smith, and O. L. Waller. (With Discussion.) 1074.

"Interstate Water Problems and Their Solution." M. C. Hinderlider and R. I. Meeker. 1035. Discussion: Frank C. Emerson, and D. C. Henny. 1052.

"Relation of Depth to Curvature of Channels." H. C. Ripley. (With Discussion.) 207.

"Stream Regulation with Reference to Irrigation and Power." J. C. Stevens. 958. Discussion: Edward H. Sargent, W. G. Hoyt, F. F. Henshaw, Barry Dibble, Ralf R. Woolley, Arthur P. Davis, J. W. Swaren, William B. Landreth, and J. D. Galloway. 971.

"The Work of the Quebec Streams Commission." O. O. Lefebvre. 867.

STRAIN.

"Virtual Work: A Restatement." Hardy Cross. (With Discussion.) 610.

STREAM FLOW.

See **WATER, FLOW OF, IN OPEN CHANNELS.**

STREAMS.

See **RIVERS.**

STREET RAILWAYS.

"Trend of Construction Cost of Certain Public Utilities." William Breuer. (With Discussion.) 602.

STREET TRAFFIC.

See **TRAFFIC.**

STRESS.

"Analysis of Continuous Concrete Arch Systems." Charles S. Whitney. (With Discussion.) 1094.

"Moments in Restrained and Continuous Beams by the Method of Conjugate Points." L. H. Nishkian and D. B. Steinman. (With Discussion.) 1.

"Stresses in Helically Reinforced Concrete Columns." A. W. Zesiger and E. J. Affeldt. (With Discussion.) 379.
"Stresses in Thick Arches of Dams." B. F. Jakobsen. (With Discussion.) 475.
"Virtual Work: A Restatement." Hardy Cross. (With Discussion.) 610.

SURVEYING.

"Field Procedure of Adjusting the Great Circle Line to the Rhumb Line." N. B. Sweitzer. 1005. Discussion: C. V. Hodgson, D. E. Hughes, R. L. Faris, George L. Hosmer, and Joseph James Corti. 1013.

SURVEYING, AERIAL.

"Aeroplane Topographic Surveys." George T. Bergen. 627. Discussion: Harold C. Fiske, Arthur P. Davis, Haywood R. Faison, and Gerard H. Matthes. 656.

TRAFFIC.

"Increasing the Efficiency of Passenger Transportation in City Streets." John A. Miller, Jr. 914. Discussion: J. C. Stevens, Harry R. Miller, Carl W. Stocks, John C. Long, W. G. Strait, Harold M. Lewis, William E. Thompson, Lewis A. De Blois, E. N. Johnson, Charles Gordon, J. R. Slattery, William J. Shea, Harold H. Dunn, Max Miller, William T. Lyle, T. Kennard Thomson, J. P. Snow, Theodore T. McCrosky, and F. Lavis. 923.

TRANSPORTATION.

See **TRAFFIC.**

TUNNELS.

"Pipe Tunnel Under Gowanus Canal, Brooklyn, New York." L. S. Stiles. 444. Discussion: Robert Ridgway, J. C. Meem, John R. Slattery, Henry B. Seaman, T. Kennard Thomson, Frederick L. Cranford, Charles W. Staniford, and John F. O'Rourke. 464.

VALUATION.

"Trend of Construction Cost of Certain Public Utilities." William Breuer. (With Discussion.) 602.

WATER, DUTY OF.

"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." S. T. Harding, Harry Barnes, Lynn Crandall, Augustus Griffin, O. W. Israelsen, H. E. Murdock, R. L. Parshall, W. L. Powers, G. E. P. Smith, and O. L. Waller. 1074. Discussion: E. A. Porter, and Lloyd Garrison. 1091.

WATER, FLOW OF, IN OPEN CHANNELS.

"Relation of Depth to Curvature of Channels." H. C. Ripley. 207. Discussion: E. G. Walker, Hubert Engels, Olin H. Landreth, Leonard C.

Jordan, Lewis M. Haupt, B. Malaval, David A. Molitor, Edward N. Chisolm, Jr., and P. N. Fawcett. 239.
"Stream Regulation with Reference to Irrigation and Power." J. C. Stevens. (With Discussion.) 958.

WATER LAWS.

Bibliography on interstate and international water problems of the United States. 1049.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." S. T. Harding, Harry Barnes, Lynn Crandall, Augustus Griffin, O. W. Israelsen, H. E. Murdock, R. L. Parshall, W. L. Powers, G. E. P. Smith, and O. L. Waller. (With Discussion.) 1074.
"Interstate Water Problems and Their Solution." M. C. Hinderlider and R. I. Meeker. (With Discussion.) 1035.

WATER POWER.

"Developments of the Hydro-Electric Power Commission of Ontario. Frederick A. Gaby. 883.
"Stream Regulation with Reference to Irrigation and Power." J. C. Stevens. (With Discussion.) 958.
"The Work of the Quebec Streams Commission." O. O. Lefebvre. 867.

WATER RIGHTS.

Bibliography on interstate and international water problems of the United States. 1049.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." S. T. Harding, Harry Barnes, Lynn Crandall, Augustus Griffin, O. W. Israelsen, H. E. Murdock, R. L. Parshall, W. L. Powers, G. E. P. Smith, and O. L. Waller. (With Discussion.) 1074.
"Interstate Water Problems and Their Solution." M. C. Hinderlider and R. I. Meeker. (With Discussion.) 1035.

WATER STORAGE.

"Stream Regulation with Reference to Irrigation and Power." J. C. Stevens. (With Discussion.) 958.

WORK, VIRTUAL.

"Virtual Work: A Restatement." Hardy Cross. 610. Discussion: E. A. MacLean, Richard G. Doerfling, and J. Charles Rathbun. 619.

AUTHOR INDEX

ADAMS, FRANK.
"Irrigation Development Through Irrigation Districts." 773.

AERTSEN, GUILLIAEM.
Memoir of. 1147.

AFFELDT, E. J.
"Stresses in Helically Reinforced Concrete Columns." 379.

AHLERS, JOHN G.
Corrosion of concrete. 823.

ARMSTRONG, WALTER R.
"Development of Industrial Sites and Trackage Layouts at Kansas City, Kansas, and Los Angeles, California, by the Union Pacific System." 994.

BARNES, HARRY.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.

BASCOM, GEORGE ROCKWELL.
Memoir of. 1149.

BAYLIS, JOHN R.
"Corrosion of Concrete." 791.

BEANFIELD, R. McC.
Moments in restrained and continuous beams. 142.

BELDEN, HARRY AUSTIN.
Memoir of. 1151.

BERGEN, GEORGE T.
"Aeroplane Topographic Surveys." 627.

BERNSTEIN, LESTER.
Development of industrial sites. 1003.

BINGER, WALTER D.
Corrosion of concrete. 857.

BOGUE, R. H.
Corrosion of concrete. 825.

BOSSERT, CARL DONALD.
Memoir of. 1197.

BREUER, WILLIAM.
"Trend of Construction Cost of Certain Public Utilities". 602.

BURT, AARON MOULTON.
Memoir of. 1153.

BUTLER, A. D.
Development of industrial sites. 1003.

CAIN, WILLIAM.
Stresses in thick arches of dams. 522.

CARMICHAEL, TROY.
Corrosion of concrete. 840.

CHANDLER, E. F.
Evaporation on Reclamation projects. 363.

CHISOLM, EDWARD N., JR.
Relation of depth to curvature of channels. 248.

CLAIR, M. N.
Corrosion of concrete. 825.

CONNOR, EDWARD JAMES.
Memoir of. 1204.

CORTI, JOSEPH JAMES.
Adjusting great circle line to rhumb line. 1022.

COTTEN, S. M.
Moments in restrained and continuous beams. 84.

CRANDALL, LYNN.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.

CRANFORD, FREDERICK L.
Pipe tunnel under Gowanus Canal. 469.

CREUZBAUR, ROBERT WALTER.
Memoir of. 1160.

CROSS, HARDY.
Analysis of concrete arch systems. 1137.
Moments in restrained and continuous beams. 68.
"Virtual Work: A Restatement." 610.

DAVIS, ARTHUR P.
Aeroplane topographic surveys. 665.
History of Western irrigation development. 693.
Stream regulation: Irrigation and power. 983.

De BLOIS, LEWIS A.
Passenger transportation in city streets. 938.

DERICKSON, DONALD.
Moments in restrained and continuous beams. 71.

DIBBLE, BARRY.
Stream regulation: Irrigation and power. 980.

DOERFLING, RICHARD G.
Moments in restrained and continuous beams. 122.
Virtual work: A restatement. 619.

DRAFFIN, JASPER O.
Corrosion of concrete. 836.

DUNN, HAROLD H.
Passenger transportation in city streets. 943.

EATON, E. COURTLAND.
"Irrigation Development Through Irrigation Districts." 773.

EDDY, C. L.
Helically reinforced concrete columns. 420.

EMERSON, FRANK C.
Interstate water problems. 1052.

ENGELS, HUBERT.
Relation of depth to curvature of channels. 239.

ETCHEVERRY, B. A.
Reclamation Bureau and land settlement. 735.

FAISON, HAYWOOD R.
Aeroplane topographic surveys. 666.

FARIS, R. L.
Adjusting great circle line to rhumb line. 1018.

FAWCETT, P. N.
Relation of depth to curvature of channels. 251.

FELD, JACOB.
Helically reinforced concrete columns. 437.

FIELD, JOHN E.
Private financing of irrigation developments. 718.

FISKE, HAROLD C.
Aeroplane topographic surveys. 656.

FOLLANSBEE, ROBERT.
Evaporation on Reclamation projects. 287.

FORTIER, SAMUEL.
History of Western irrigation development. 687.

GABY, FREDERICK A.
"Developments of the Hydro-Electric Power Commission of Ontario." 883.

GALLOWAY, J. D.
Stream regulation: Irrigation and power. 989.

GARRISON, LLOYD.
Water-right adjudications. 1093.

GEDO, JULES D.
Moments in restrained and continuous beams. 188.

GIFFORD, GEORGE EDWIN.
Memoir of. 1163.

GODFREY, EDWARD.
Moments in restrained and continuous beams. 61.

GORDON, CHARLES.
Passenger transportation in city streets. 939.

GOULD, JOHN J.
Moments in restrained and continuous beams. 117.

GRANGER, A. T.
Moments in restrained and continuous beams. 113.

GRIFFIN, AUGUSTUS.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.
"Land Settlement of Irrigation Projects." 750.

GRIFFITH, J. H.
Helically reinforced concrete columns. 425.

GRUNSKY, C. E.
History of Western irrigation development. 697.

HARDER, E. H.
Helically reinforced concrete columns. 420.

HARDING, S. T.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.
Evaporation on Reclamation projects. 326.

HARRIS, ELMO G.
Stresses in thick arches of dams. 547.

HARRISON, EDLOW WINGATE.
Memoir of. 1165.

HART, R. A.
Land settlement of irrigation projects. 763.

HAUPT, LEWIS M.
Relation of depth to curvature of channels. 243.

HAWKSLEY, KENNETH PHIPSON.
Memoir of. 1167.

HENNY, D. C.
Interstate water problems. 1061.

HENSHAW, F. F.
Stream regulation: Irrigation and power. 978.

HEUER, WILLIAM HENRY.
Memoir of. 1168.

HIGGINS, GEORGE.
Moments in restrained and continuous beams. 69.

HINCKLEY, HOWARD VERNON.
Memoir of. 1171.

HINDERLIDER, M. C.
"Interstate Water Problems and Their Solution." 1035.

HODGSON, C. V.
Adjusting great circle line to rhumb line. 1013.

HOOVER, JOSEPH WARREN.
Memoir of. 1173.

HOSMER, GEORGE L.
Adjusting great circle line to rhumb line. 1021.

HOUK, IVAN E.
"Evaporation on United States Reclamation Projects". 266.

HOYT, W. G.
Stream regulation: Irrigation and power. 975.

HUGHES, D. E.
Adjusting great circle line to rhumb line. 1015.

HUMMER, J. W.
Trend of construction cost of public utilities. 608.

HUNT, AUGUSTUS.
Development of industrial sites. 1004.

ISRAELSEN, O. W.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.

JAKOBSEN, B. F.
"Stresses in Thick Arches of Dams." 475.

JARVIS, C. S.
Evaporation on Reclamation projects. 301.

JOHNSON, E. N.
Passenger transportation in city streets. 939.

JOHNSON, NATHAN C.
Corrosion of concrete. 850.

JOHNSON, PHELPS.
Memoir of. 1176.

JORDAN, LEONARD C.
Relation of depth to curvature of channels. 242.

JORGENSEN, LARS R.
Stresses in thick arches of dams. 553.

JUDSON, WILLIAM PIERSON.
Memoir of. 1179.

KLEINSCHMIDT, H. S.
Evaporation on Reclamation projects. 287.

KREUTZER, GEORGE C.
Reclamation Bureau and land settlement. 744.

LANDRETH, OLIN H.
Relation of depth to curvature of channels. 240.

LANDRETH, WILLIAM B.
Stream regulation: Irrigation and power. 986.

LAVIS, F.
Passenger transportation in city streets. 953.

LEE, CHARLES H.
Evaporation on Reclamation projects. 330.

LEFEBVRE, O. O.
"The Work of the Quebec Streams Commission". 867

LEWIS, HAROLD M.
Passenger transportation in city streets. 933.

LIPPINCOTT, J. B.
Evaporation on Reclamation projects. 351.
Irrigation districts. 786.

LOCKWOOD, WILLARD DATUS.
Memoir of. 1181.

LONG, JOHN C.
Passenger transportation in city streets. 930.

LYLE, WILLIAM T.
Passenger transportation in city streets. 947.

LYMAN, RICHARD R.
Irrigation districts. 784.

MacLEAN, E. A.
Virtual work: A restatement. 619.

McCORMICK, ROBERT HUGH.
Memoir of. 1183.

McCROSKY, THEODORE T.
Passenger transportation in city streets. 951.

McMILLAN, F. R.
Corrosion of concrete. 844.

MALAVAL, B.
Relation of depth to curvature of channels. 244.

MATTHES, GERARD H.
Aeroplane topographic surveys. 668.

MEAD, ELWOOD.
"Present Policy of the United States Bureau of Reclamation Regarding Land Settlement." 730.
Private financing of irrigation developments. 724.

MEANS, THOMAS H.
Reclamation Bureau and land settlement. 738.

MEEKER, R. I.
Evaporation on Reclamation projects. 292.
"Interstate Water Problems and Their Solution." 1035.

MEEM, J. C.
Pipe tunnel under Gowanus Canal. 465.

MERRIMAN, THADDEUS.
Corrosion of concrete. 822.

MILLER, DALTON G.
Corrosion of concrete. 842.

MILLER, HARRY R.
Passenger transportation in city streets. 926.

MILLER, JOHN A., JR.
"Increasing the Efficiency of Passenger Transportation in City Streets." 914.

MILLER, MAX.
Passenger transportation in city streets. 944.

MOLITOR, DAVID A.
Relation of depth to curvature of channels. 245.

MURDOCK, H. E.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.

NEWELL, F. H.
History of Western irrigation development. 700.
Land settlement of irrigation projects. 765.
Private financing of irrigation developments. 725.

NEWHALL, CHARLES A.
Corrosion of concrete. 838.

NISHKIAN, L. H.
"Moments in Restrained and Continuous Beams by the Method of Conjugate Points." 1.

NOETZLI, FRED A.
Stresses in thick arches of dams. 574.

O'NEIL, C. M.
Evaporation on Reclamation projects. 343.

O'ROURKE, JOHN F.
Pipe tunnel under Gowanus Canal. 473.

O'SHAUGHNESSY, THOMAS PATRICK.
Memoir of. 1199.

PAASWELL, GEORGE.
Stresses in thick arches of dams. 567.

PACKARD, WALTER E.
Land settlement of irrigation projects. 769.

PARSHALL, R. L.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.
Evaporation on Reclamation projects. 318.

PERKINS, W. A.
Stresses in thick arches of dams. 570.

PERRY, LYNN.
Evaporation on Reclamation projects. 316.

PORTER, E. A.
Water-right adjudications. 1091.

POWERS, W. L.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.

RATHBUN, J. CHARLES.
Virtual work: A restatement. 623.

RICHART, F. E.
Moments in restrained and continuous beams. 50.

RIDGWAY, ROBERT.
Pipe tunnel under Gowanus Canal. 464.

RIPLEY, H. C.
"Relation of Depth to Curvature of Channels." 207.

ROWLAND, CHARLES LEONARD.
Memoir of. 1184.

RUPPEL, WALTER.
Moments in restrained and continuous beams. 152.

SARGENT, EDWARD H.
Stream regulation: Irrigation and power. 971.

SEAMAN, HENRY B.
Pipe tunnel under Gowanus Canal. 468.

SHEA, WILLIAM J.
Passenger transportation in city streets. 941.

SHEPHERD, R. E.
"The Financing of Irrigation Developments by Private Capital." 710.

SHIVELY, CLARENCE OWEN.
Memoir of. 1200.

SLATTERY, JOHN R.
Passenger transportation in city streets. 940.
Pipe tunnel under Gowanus Canal. 467.

SLEIGHT, REUBEN B.
Evaporation on Reclamation projects. 303.

SMITH, G. E. P.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.

SMITH, OBERLIN.
Memoir of. 1185.

SNOW, J. P.
Passenger transportation in city streets. 949.

SOMERVILLE, ROBERT.
Memoir of. 1188.

SPITZER, FELIX H.
Moments in restrained and continuous beams. 63.

STANIFORD, CHARLES W.
Pipe tunnel under Gowanus Canal. 470.

STEIN, MILTON FREDERICK.
Memoir of. 1190.

STEINMAN, D. B.
"Moments in Restrained and Continuous Beams by the Method of Conjugate Points." 1.

STEVENS, J. C.
Passenger transportation in city streets. 923.
"Stream Regulation with Reference to Irrigation and Power." 928.

STILES, L. S.
"Pipe Tunnel Under Gowanus Canal, Brooklyn, New York." 444.

STOCKS, CARL W.
Passenger transportation in city streets. 928.

STOUT, O. V. P.
Irrigation districts. 788.

STRACHAN, JOSEPH.
Memoir of. 1192.

STRAIT, W. G.
Passenger transportation in city streets. 931.

SWAREN, J. W.
Stream regulation: Irrigation and power. 984.

SWEITZER, N. B.
"Field Procedure of Adjusting the Great Circle Line to the Rhumb Line." 1005.

SWENDSEN, W. G.
Land settlement of irrigation projects. 757.

THOMPSON, MISSAC.
Helically reinforced concrete columns. 417.

THOMPSON, WILLIAM ANDREW.
Memoir of. 1194.

THOMPSON, WILLIAM E.
Passenger transportation in city streets. 937.

THOMSON, T. KENNARD.
Passenger transportation in city streets. 947.
Pipe tunnel under Gowanus Canal. 468.

TIFFANY, R. K.
Land settlement of irrigation projects. 763.

TORPEN, B. E.
Evaporation on Reclamation projects. 300.

TRATMAN, E. E. R.
Corrosion of concrete. 862.

TUCKER, JOHN, JR.
Helically reinforced concrete columns. 430.

TURNER, C. A. P.
Moments in restrained and continuous beams. 64.

VOGT, FREDRIK.
Stresses in thick arches of dams. 554.

WALKER, E. G.
Moments in restrained and continuous beams. 70
Relation of depth to curvature of channels. 239.

WALLER, O. L.
"Determination of the Duty of Water in Water-Right Adjudications: Report of the Duty of Water Committee of the Irrigation Division." 1074.
Reclamation Bureau and land settlement. 746.

WEST, CHARLES H.
Land settlement of irrigation projects. 759.

WHITNEY, CHARLES S.
"Analysis of Continuous Concrete Arch Systems." 1094.
Moments in restrained and continuous beams. 56.

WIDTSOE, JOHN A.
"History and Problems of Irrigation Development in the West." 680.

WIGHT, FRANK C.
Trend of construction cost of public utilities. 607.

WILCOX, CLARK LUZERNE.
Memoir of. 1202.

WILLIAMS, G. M.
Corrosion of concrete. 828.

WILSON, W. M.
Moments in restrained and continuous beams. 73.

WOOD, REUBEN JOSEPH.
Memoir of. 1196.

WOOLLEY, RALF R.
Stream regulation: Irrigation and power. 981.

ZESIGER, A. W.
"Stresses in Helically Reinforced Concrete Columns." 379.